

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 18	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY CODE John F. Kennedy Space Center, NASA Procurement Office – ODIN – OP-MS Kennedy Space Center, FL 32899		7. ADMINISTERED BY (If other than Item 6) CODE			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) OAO Corporation 7500 Greenway Center Drive Greenbelt MD 20770			<input checked="" type="checkbox"/> (x)	9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
				10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-98144/CC90300B	
CODE			10B. DATED (SEE ITEM 13) December 1, 2001		
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<p><input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning ___ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					

No Change

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
XX	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR CLAUSE 52.212-4 CONTRACT TERMS AND CONDITIONS - COMMERCIAL ITEMS, (C) CHANGES
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

KENNEDY SPACE CENTER --- ODIN SERVICES

Subject: Infrastructure Upgrade: Telephone Service for the Operations Support Building (OSB) II

Change in Delivery Order Price: \$545,432.96 (INCREASE)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Bonnie L. Brandon Director of Contracts		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Penelope A. Ebright Delivery Order Contracting Officer	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <u>Original Signed by Penelope A. Ebright</u> (Signature of Contracting Officer)	16C. DATE SIGNED May 2, 2002

1. This modification incorporates the infrastructure upgrade effort necessary to provide telephone service to the Operations Support Building (OSB) II as identified in the Statement of Work dated September 18, 2001 (Attachment 1), and as outlined in the Contractor's proposal dated January 25, 2002, at an increase of \$545,432.96 in the firm fixed price. The material identified by the contractor to fulfill this requirement is identified in Attachment 2.

a. The contractor shall provide the labor, including, but not limited to, planning, engineering, configuration management, user coordination/scheduling, wiring/cabling and equipment installation, and the materials necessary to install an EWSD Smart Remote Unit to the KSC Administrative Telephone System (ATS).

b. The addition of the OSB II to the Kennedy ATS shall be accomplished without interruption of service to existing users.

2. Schedule: This infrastructure effort shall be completed 18 months after the OSB II construction project commences.

3. Delivery Order Part II, Item 4 is revised to include the increase of \$545,432.96 for this infrastructure upgrade:

4. TOTAL DELIVERY ORDER VALUE (through Mod No. 18):

Ordered Seats/Service Levels (Attachment A)	\$3,920,546.04
Catalog Services	\$189,638.45
Specialized Services	\$1,050.00
Infrastructure Upgrades	\$545,432.96
Sub-total	\$ 4,656,586.51
Less credits	(\$37,516.68)
Less retainage not earned	(\$2,170.78)
Sub-total	\$ 4,616,899.05
Seats/Service levels projected through 11/30/04	\$23,848,895.81
Catalog projections	\$4,010,442.49
Estimated Specialized Services	\$48,950.00
Total Estimated Delivery Order Value:	\$32,525,187.35

4. Delivery Order Part V "Technology Infusion (Infrastructure Upgrades)", Item 2 is modified to include subject infrastructure upgrade.

Mod. No.	Description Of Work	Date Signed	Completion Date	Modification Value
18	Telephone Service at OSB II			\$545,432.96
Total Dollar Value of Incorporated Infrastructure Modifications				\$545,432.96

5. **Payment Schedule:** Invoicing and Payment for this modification will be made in accordance with Master Contract NAS5-098144, FAR 52.212-4: Commercial Items (May 1997) (Modified). Upon receipt of the material in total, and upon acceptance by the Government, the contractor may invoice for the material prior to completion of this infrastructure effort.

6. **Reporting Requirements:** The contractor shall provide monthly status reports to the KSC DOCOTR, with a copy to the DOCO. These reports shall include, as a minimum, installation progress, and potential problem areas.

7. In consideration of the modification agreed to herein as complete equitable adjustment for the changes set forth, the Contractor hereby releases the Government from any and all liability under this delivery order for further equitable adjustment attributable to such fact or circumstances giving rise to these changes.

8. All other terms and conditions remain unchanged.

**Telephone Service for Operations Support Building (OSB) II
Statement of Work**

The OSB-II will require approximately 1008 Analog lines and 96 ISDN ports. NASA requests OAO to provide a proposal for the delivery, assembly, installation and testing of an EWSD Smart Remote including chargers, a power system rack and a standby 48-volt gel cell battery system for 8 hours of operation. The proposal submission shall include a technical proposal outlining the design and implementation, a schedule bar chart which details the delivery, assembly, installation and testing activities of the project and a detailed price proposal.

The Government will provide the design, installation and validation of the structured cable system from the customer face plate (CFP) to a voice patch cabinet in each floors respective communication closet, down to the first floor main communications room. The Government will be responsible for providing the outside cable plant to the OSB II to include DS3 electrical connections off of the SONET System. OAO will be responsible for providing two DS3 to DS1 multiplexers (such as an EZT3) to produce DS1 connectivity at the OSB II and the CD&SC respectively.

OAO shall provide the following items. All switch lines shall be terminated and labeled by OAO on main distribution frames provided by the Government (reference drawing 79K35697 sheet TC-24) and be ready to be cross-connected to the Premise Wiring System. OAO shall provide DSX Jack panels to terminate both switch internal requirements and external connections including the HTI/RTI T-1 connections, side door trunking of 2 T-1 Spans to the OSB, which are provided by the Government, and a minimum of 2 DIU's for Local T-1/PRI service. Approximately 16 to 18 months after the construction of OSB II begins, OAO shall install and activate the Smart Remote during the two-month joint occupancy period. The EWSD Smart Remote shall be completely operational and ready to support personnel starting 18 months into the construction of OSB II.

The Government will order the necessary PH seats to provide the required telephone instruments for the OSB II occupants.

The OSB II telecommunication design drawings are 79K35697 sheets TC-1 through TC-53.

Telephone Service for Operations Support Building (OSB) II
 Material List

<u>PART NUMBER</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1. DIGITAL LINE UNIT (DLUB)			
S30805-C2716-X500	R:DLUB	7' DLUB RACK	2
S30122-U710-X	FUSE-PANEL	FUSE PANEL	2
S30804-B2729-X100	F:DLU(G)	FRAME DLU(G) FOR DLUB RACK	5
S30804-B2729-X1	ADD.KEY32	ADDITIONAL KEYING 32	5
S30050-Q6101-X	M:DCCDG	DIRECT CURRENT CONVERTER	16
S30050-Q6102-X	M:DCCDH	DIRECT CURRENT CONVERTER	10
S30050-Q6105-X	M:DCCDL	DIRECT CURRENT CONVERTER	3
S30810-Q967-X101	M:ALEX	EXTERNAL ALARMSET	1
S30810-Q1066-X101	M:MTAMB	METALLIC TEST ACCESS MODULE	1
S30810-Q1067-X1	M:LTBAM	LINE TEST BUS ACCESS MODULE	10
S30810-Q1112-X1	M:FMTU	FUNCTION TEST MODULE AND TEST UNIT	5
S30810-Q1113-X1	M:LCMM	LINE AND CIRCUIT MEASURING MODULE	5
S30810-Q1324-X	M:RGB	RINGING GENERATOR MODULE	10
S30810-Q1330-X1	M:SLMA:FPF	SUBSCRIBER LINE MODULE ANALOG, GRD / LOOP START, 16 CKT	72
S30810-Q1433-X101	M:SLMD:QSB	SUBSCRIBER LINE MODULE DIGITAL, BRI, 16 CKT	9
S30810-Q1494-X3	M:DLUS:LDIA	MODULE FOR HIGH SPEED LOCAL DLU INTERFACE	10
2. LINE TRUNK GROUP (LTGK)			
S30805-C2707-X500	R:LTGK	7' RACK FOR LTGK	1
S30122-U710-X	FUSE-PANEL	FUSE PANEL	1
S30804-B2714-X	F:LTGK(A)	FRAME FOR LTGK	6
S30804-B2716-X	F:IP:DSX	F:IP:DSX FOR LTGK	1
S30804-B2714-X1	ADD.KEY29	ADDITIONAL KEYING 29	6
S30050-Q5802-X100	M:PSMDA	POWER SUPPLY MODULE TYPE DA	10
S30050-Q5862-E	M:DCCDE	DIRECT CURRENT CONVERTER	6
S30810-Q1108-X1	M:DIU:LDIE	DIGITAL INTERFACE UNIT FOR LOCAL DLUB INTERFACE, MODULE E	10
S30810-Q1339-X411	M:GPLSD	GROUP PROCESSOR MODULE FOR LTG (32MB)	6
S30810-Q1341-X1	M:GSK	GROUP SWITCH MODULE	6

**Telephone Service for Operations Support Building (OSB) II
Material List**

<u>PART NUMBER</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>	<u>QTY</u>
S30810-Q1344-X	M:SDCK	SECONDARY DIGITAL CARRIER	12
S30810-Q1345-X1	M:SUK	UNIVERSAL CODE RECEIVER	6
3. REMOTE TIMESLOT INTERCHANGE (RTI) FOR 10-12 LTGS			
S30805-C2742-X100	R:HTI/RTI	RACK FOR HTI/RTI	1
S30122-U710-X	FUSE-PANEL	FUSE PANEL	1
S30804-B2739-X	F:RSU	FRAME FOR HTI/RTI	1
S30813-Q97-X1	M:MH	MODULE FOR MESSAGE HANDLER	2
S30813-Q98-X1	M:RSUC	MODULE FOR RSU CONTROL	2
S30813-Q104-X	M:AMUX	MODULE FOR ACCESS MULTIPLEXER	2
S30813-Q105-X101	M:TSIMB	MODULE FOR TIME SLOT INTERCHANGE	2
S30813-Q107-X1	M:DIU240B	MODULE FOR DIU240	2
4. SERVICE EQUIPMENT (SE)			
S30805-C2596-X100	R:SE	RACK FOR SERVICE EQUIPMENT (7')	1
S30805-D2596-X101	FUSE-PANEL	FUSE PANEL FOR R:SE (7')	1
5. POWER DISTRIBUTION FRAME (PDF)			
S30805-C2594-X200	R:PDF	RACK FOR POWER DISTRIBUTION FRAME (7')	1
6. OEM			
L37901-H3472-A	SOM:AAIU	SET OF MODULES FOR AUDIBLE ALARM INTERFACE UNIT	2
C39324-A96-D8	FASTENING	FASTENING HW NON-ISOLATING M6X16 WITH CLIP NUT.	(8)
C39195-A176-	UH12:CONDUCT		
B195	OR	530MM QUICK DISCONNECT CONDUCTOR	(2)
C39195-A178-	UK15:CONDUCT		
B415	OR	530MM QUICK DISCONNECT TO QUICK DISCONNECT CONDUCTOR	(2)
C39195-A178-	UK35:CONDUCT		
B435	OR	2530MM QUICK DISCONNECT TO QUICK DISCONNECT CONDUCTOR	(2)

**Telephone Service for Operations Support Building (OSB) II
 Material List**

<u>PART NUMBER</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>	<u>QTY</u>
C39320-A277- C198	FUSEIDPIN	FUSE IDENTIFICATION PIN FOR 10 AMP FUSE YELLOW/VIOLET	(2)
S30807-U2544-X V39118-Z1010- A5	AAIU	AUDIBLE ALARM INTERFACE UNIT	(2)
L37901-E4000-A200	FUSE:10:AMP	FUSE 10 AMP 70 TYPE YELLOW/VIOLET	(2)
L30500-B400-X	SPGS:GTI:GEML	SET OF MODULES FOR THE GEM-1 GROUND FAULT MONITOR	1
L30500-Q450-X	F:GTI:GEM1	GEM-1 EQUIPMENT FRAME INCLUDING ONE GEM-1 UNIT. 20 AMP LARGE CORE SENSOR FOR THE GEM-1 GROUND FAULT MONITOR.	(1)
L30500-U400-X	M:GTI:SENSOR	CURRENT SENSOR CABL, 50 FT FOR THE GEM-1 GROUND FAULT MONITO	(1)
L37901-H3404-A	C:GTI:GEM1	ALARM STATUS DISPLAY UNIT INCL. MODULAR JACK AND LINE CORD	1
S30807-U2558-X	SOM:VAU	ALARM STATUS DISPLAY UNIT	(1)
L30500-D4120-X	VAU	625A2 MODULAR JACK W/SCREW TERMINALS, 6-POSITION/6- CONDUCTOR	(2)
L30500-D4122-X	VAU:MOD:JACK	LINE CORD, PLUG-PLUG, 6 CONDUCTOR, 14 FOOT	(1)
L30500-D4122-X	VAU:LINE:CORD		
7. MISCELLANEOUS			
L98500-Z8628-X	TSI:TERM:BLK	TSI NON-CONNECTORIZED LINE TERMINAL BLOCK BRB-0832-330-O99-2	15
L98500-Z8635-X	TSI:TERM:BLOCK	TSI NON-CONNECTORIZED MISC. TERMINAL BLOCK BRS-0832-330-R00-0	2
L30010-X265-X100	CAB:WIRE	COMMON CABLES AND WIRE	1
L30010-X265-X102	CAB:LTG	CABLE & WIRES LTG	1
L30010-X265-X120	PW:CAB:RW	POWER CABLE RUNWAY PER FOOT	45
L30010-X265-X140	CAB:RW	CABLE RUNWAY PER EWSD RACK	5
L30010-X265-X165	CAB:4/0	POWER CABLE, PDF 4/0, PER FOOT	180
L95500-Z5269-X3	COGN:CABLE	MCIAS INTERFACE CABLE ASSEMBLY	4
L30010-X265-X200	CAB:DLUB	CABLES AND WIRES DLU-B	10
L30010-Xnnn-Xnnn	CAB:RSU	CABLES & WIRES SMARTREMOTE HTI/RTI	1

9. EWSD ONE-FOR-ONE SPARES

Telephone Service for Operations Support Building (OSB) II
Material List

<u>PART NUMBER</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>	<u>QTY</u>
S30050-Q5860-X	M:FUA:R	ALARM MODULE FOR FUSE PANEL	1
S30050-Q5861-X100	M:FUA:PDF	MODULE PART OF THE FUSE PANEL (7') USED FOR SPARE ONLY	1
S30050-Q5802-X100	M:PSMDA	POWER SUPPLY MODULE TYPE DA	1
S30050-Q5862-E	M:DCCDE	DIRECT CURRENT CONVERTER	1
S30050-Q6101-X	M:DCCDG	DIRECT CURRENT CONVERTER	1
S30050-Q6102-X	M:DCCDH	DIRECT CURRENT CONVERTER	1
S30050-Q6105-X	M:DCCDL	DIRECT CURRENT CONVERTER	1
S30810-Q967-X101	M:ALEX	EXTERNAL ALARMSET	1
S30810-Q1066-X101	M:MTAMB	METALLIC TEST ACCESS MODULE	1
S30810-Q1067-X1	M:LTBAM	LINE TEST BUS ACCESS MODULE	1
S30810-Q1108-X1	M:DIU:LDIE	DIGITAL INTERFACE UNIT FOR LOCAL DLUB INTERFACE, MODULE E	1
S30810-Q1112-X1	M:FMTU	FUNCTION TEST MODULE AND TEST UNIT	1
S30810-Q1113-X1	M:LCMM	LINE AND CIRCUIT MEASURING MODULE	1
S30810-Q1324-X	M:RGB	RINGING GENERATOR MODULE	1
S30810-Q1330-X1	M:SLMA:FPF	SUBSCRIBER LINE MODULE ANALOG, GRD / LOOP START, 16 CKT	1
S30810-Q1339-X411	M:GPLSD	GROUP PROCESSOR MODULE FOR LTG (32MB)	1
S30810-Q1341-X1	M:GSK	GROUP SWITCH MODULE	1
S30810-Q1344-X	M:SDCK	SECONDARY DIGITAL CARRIER	1
S30810-Q1345-X1	M:SUK	UNIVERSAL CODE RECEIVER	1
S30810-Q1433-X101	M:SLMD:QSB	SUBSCRIBER LINE MODULE DIGITAL, BRI, 16 CKT	1
S30810-Q1494-X3	M:DLUS:LDIA	MODULE FOR HIGH SPEED LOCAL DLU INTERFACE	1
10. RTI ONE-FOR-ONE SPARES			
S30813-Q97-X1	M:MH	MODULE FOR MESSAGE HANDLER	1
S30813-Q98-X1	M:RSUC	MODULE FOR RSU CONTROL	1
S30813-Q104-X	M:AMUX	MODULE FOR ACCESS MULTIPLEXER	1
S30813-Q105-X101	M:TSIMB	MODULE FOR TIME SLOT INTERCHANGE	1
S30813-Q107-X1	M:DIU240B	MODULE FOR DIU240	1

Telephone Service for Operations Support Building (OSB) II
Material List

<u>PART NUMBER</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1. DIGITAL LINE UNIT (DLUB)			
S30805-C2716-X500	R:DLUB	7' DLUB RACK	
S30122-U710-X	FUSE-PANEL	FUSE PANEL	1
S30804-B2729-X100	F:DLU(G)	FRAME DLU(G) FOR DLUB RACK	1
S30804-B2729-X1	ADD.KEY32	ADDITIONAL KEYING 32	1
S30050-Q6101-X	M:DCCDG	DIRECT CURRENT CONVERTER	4
S30050-Q6102-X	M:DCCDH	DIRECT CURRENT CONVERTER	2
S30050-Q6105-X	M:DCCDL	DIRECT CURRENT CONVERTER	1
S30810-Q967-X101	M:ALEX	EXTERNAL ALARMSET	1
S30810-Q1066-X101	M:MTAMB	METALLIC TEST ACCESS MODULE	1
S30810-Q1067-X1	M:LTBAM	LINE TEST BUS ACCESS MODULE	2
S30810-Q1112-X1	M:FMTU	FUNCTION TEST MODULE AND TEST UNIT	1
S30810-Q1113-X1	M:LCMM	LINE AND CIRCUIT MEASURING MODULE	1
S30810-Q1324-X	M:RGB	RINGING GENERATOR MODULE	2
S30810-Q1330-X1	M:SLMA:FPF	SUBSCRIBER LINE MODULE ANALOG, GRD / LOOP START, 16 CKT	9
S30810-Q1433-X101	M:SLMD:QSB	SUBSCRIBER LINE MODULE DIGITAL, BRI, 16 CKT	3
S30810-Q1494-X3	M:DLUS:LDIA	MODULE FOR HIGH SPEED LOCAL DLU INTERFACE	2
2. LINE TRUNK GROUP (LTGK)			
S30050-Q5802-X100	M:PSMDA	POWER SUPPLY MODULE TYPE DA	2
S30810-Q1108-X1	M:DIU:LDIE	DIGITAL INTERFACE UNIT FOR LOCAL DLUB INTERFACE, MODULE E	2
3. MISCELLANEOUS			
L98500-Z8628-X	TSI:TERM:BLK	TSI NON-CONNECTORIZED LINE TERMINAL BLOCK BRB-0832-330-O99-2	3
L98500-Z8635-X	TSI:TERM:BLOCK	TSI NON-CONNECTORIZED MISC. TERMINAL BLOCK BRS-0832-330-R00-0	2
L30010-X265-X120	PW:CAB:RW	POWER CABLE RUNWAY PER FOOT	9
L30010-X265-X140	CAB:RW	CABLE RUNWAY PER EWSD RACK	1

Telephone Service for Operations Support Building (OSB) II
 Material List

<u>PART NUMBER</u>	<u>MNEMONIC</u>	<u>DESCRIPTION</u>	<u>QTY</u>
L30010-X265-X165	CAB:4/0	POWER CABLE, PDF 4/0, PER FOOT	36
L30010-X265-X200	CAB:DLUB	CABLES AND WIRES DLU-B	1
1. Host Timeslot Interchange (HTI)			
S30813-Q107-X1	M:DIU240B	MODULE FOR DIU240	2